UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/631,808	08/03/2000	Claude Chapel	RCA 90,303	9142

7590 07/08/2004

Joseph S Tripoli
Patent Operations
Thomson Multimedia Licensing Inc
CN 5312
Princeton, NJ 08543-0028

EXAMINER
BOCCIO, VINCENT F

ART UNIT	PAPER NUMBER
2615	4

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

	Application No.		Applicant(s)
Office Action Summary	09/631,808		CHAPEL ET AL.
	Examiner		Art Unit
	Vincent F. Boccio		2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
  closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 8-13* is/are rejected.

7)☒ Claim(s) *7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *9/3/00* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
  application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date 2.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Drawings

1.   The drawings are objected to under 37 CFR 1.83(a).   The
drawings must show every feature of the invention specified in
the claims.   Therefore, the claimed feature in claims 1-13, must
be shown or the feature(s) canceled from the claim(s).   No new
matter should be entered.

> {A} The drawings fail to show the elements, steps and/or
> process corresponding to the claimed subject matter in
> claims 1-13.

The presented drawings are also objected to in view of:

> {B} Figs. 1 and 4, fails to have text identifications
corresponding to number designations.

> {C} Fig. 3, also should identify {9-11}, text
identifications corresponding to number designations.

   Corrected drawing sheets are required in reply to the
Office action to avoid abandonment of the application.   Any
amended replacement drawing sheet should include all of the
figures appearing on the immediate prior version of the sheet,
even if only one figure is being amended.   The figure or figure
number of an amended drawing should not be labeled as "amended."
If a drawing figure is to be canceled, the appropriate figure
must be removed from the replacement sheet, and where necessary,
the remaining figures must be renumbered and appropriate changes
made to the brief description of the several views of the
drawings for consistency.   Additional replacement sheets may be
necessary to show the renumbering of the remaining figures.   The
replacement sheet(s) should be labeled "Replacement Sheet" in
the page header (as per 37 CFR 1.84(c)) so as not to obstruct
any portion of the drawing figures.   If the changes are not
accepted by the examiner, the applicant will be notified and
informed of any required corrective action in the next Office
action.

The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6, 8-9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim (US 5,832,256).

Regarding claim 1, Kim discloses and meets the claimed limitations as recited, associated with a process performed by an MPEG decoder for decoding of a compressed stream from a medium (met by col. 1, "MPEG encoding … suitable for storage", wherein in view of "network transmissions", ".. timing jitters create fluctuations of the system clock … that the recovered system clock cannot be used in the decoding system", therefore encoded and stored and transmitted from the medium), wherein with respect to MPEG meets the limitations of packetized elementary stream, audio, video packets are met,
the process comprising:

a step of calculating (Fig. 4, "36", "1/300", division) an actual instant of presentation [referred to as Tpres], of the video of an image, {a clock}

o   met by (output of 36 or even 37), wherein this instant related to (the value/count, calculated by 36, is originally feb from the VCO or local clock 33),

• a local clock (Fig. 4, "VCO 33", col. 4, line 18, "VCR 33 is 27 MHZ"),

• a step of calculating an offset STOC between this calculated instant of presentation desired (which related to PTS and STC), by the coder for the video of this image, so as to define

●   a virtual clock recited as VSTC is met and generated
by adder "A", adding two signals

■ "one being from element 39 and the other from
second counter 38",

■ meeting the formula as recited

such that, VSTC = STCO + LSTC;

wherein further meets the limitations such as the
presentation of the video corresponds to this image being made
at the time of the PTS {presentations time stamp of an
image/frame}, dates/times relating to the virtual VSTC.

Regarding claims 2-4, Kim meets the limitations of
wherein the time of transit of the video through the buffer
(see VBV detect and VBV delay, wherein VBV stands for video
buffer verifier) of the video decoder is imposed at a
predetermined value TVBV (met by col. 2, line 62 to col. 4,
etc...............), wherein the determination of TVBV is dependent
upon the bit rate (see VBV_delay calculation col. 3, lines
12-20, which uses a rate parameter R), which is also
dependent upon the VBV_delay (reference Fig. 4, "VBV_Delay
n" and also related to "VBV_Detect"), wherein the
determination of TVBV is dependent upon the VBV_delay.

Regarding claims 6 and 9, Kim further meets the
limitation as recited wherein the calculated offset {STOC},
is incremented by one of frame periods {TV sync}, met in
view of tracking of the system time clock {STC} and
tracking of the offset for the STCO to thereby obtain the
VSTC, since the PTS, related to the STC, is provided per
frame, the offset and PTS and STC, and further the VSTC is
also updated or re-updated per each image/frame, as is
understood by those skilled in the art.

Regarding claims 8-9, Kim further as understood by the
examiner further meets the limitation of wherein the VSTC
is updated or re-updated on start up (related to the STC or
system time clock which is used by the decoder is always
updated at initialization or re-initialization, as is
known), which one of executing trick modes or on re-
initialization or initialization of the decoder, is
considered met by the reference, further according to

Fig.4, the VSTC is re-updated per/video image each
comprising PTS and DTS, which is compared to the corrected
STC or VSTC, due to jitter (col. 1, lines 57-).

Claim 11 is analyzed and discussed with respect to the

claims above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms
   the basis for all obviousness rejections set forth in this
   Office action:

   (a) A patent may not be obtained though the invention is
   not identically disclosed or described as set forth in
   section 102 of this title, if the differences between the
   subject matter sought to be patented and the prior art are
   such that the subject matter as a whole would have been
   obvious at the time the invention was made to a person
   having ordinary skill in the art to which said subject
   matter pertains. Patentability shall not be negatived by
   the manner in which the invention was made.
   This application currently names joint inventors. In
   considering patentability of the claims under 35
   U.S.C. 103(a), the examiner presumes that the subject
   matter of the various claims was commonly owned at the time
   any inventions covered therein were made absent any
   evidence to the contrary. Applicant is advised of the
   obligation under 37 CFR 1.56 to point out the inventor and
   invention dates of each claim that was not commonly owned
   at the time a later invention was made in order for the
   examiner to consider the applicability of 35 U.S.C. 103(c)
   and potential 35 U.S.C. 102(f) or (g) prior art under 35
   U.S.C. 103(a).

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being
   unpatentable over Kim (US 5,832,256) in view of O'Conner (WO
   99/33265).

   Regarding claim 10, Kim meets the limitation of storage of
   an MPEG stream, therefore, inherently the stored stream
   requires decoding on the receiving side, but,
   Kim fails to show any details associated with the receiving
   side device or reproduction device from a medium and
   therefore, fails to disclose

- for reading data shifted mode (time shifting), the
  data being recorded on the basis of a write pointer,
  the recorded data being reading shifted time on the
  basis of a read pointer, wherein the minimum gap is
  imposed between the read and write pointers and,
  when the gap is achieved, the freeze mode of the
  decoder is actuated.

O'Conner teaches page 6, lines 12-,

- "When the time delay of the shifted video stream
  being played back falls below a certain threshold,
  the video and playback system will cease providing
  the time-shifted video stream from the storage
  unit",

  therefore, since, "cease providing playback", the
  decompression unit 110, as shown in Fig. 1, MPEG 2,
  according to page 2, would freeze/halt, its decoding
  operation, in view of providing, "Instead, the
  incoming video stream will be provided to the video
  out port directly", therefore, the MPEG decoder output
  is not used, therefore, reading on the step of
  performing a freezing mode or to cease decoding upon
  this condition, therefore, it would have been obvious
  to one skilled in the art, modify Kim by incorporating
  the MPEG decoder into O'Conner, being a simultaneous
  recording and reproduction, time shifting operational
  device and to freeze the decoder upon the minimum gap
  as recited, as taught by O'Conner, thereby to remove
  the burden on the system, by freezing the decoder upon
  user catch up to real time recording points, by
  providing the output directly.

5. Claims 5, 12-13 are rejected under 35 U.S.C. 103(a) as being
   unpatentable over Kim (US 5,832,256).

   Claims 12-13, Kim mentions @ col. 1, storage and transmission,
therefore, recording, thereafter reproduction and reception of
either reproduced or even transmission, suggesting, such as a
broadcast,

but, fails to particularly disclose wherein the decoder is a satellite decoder or a TV receiver comprising an MPEG decoder according to claim 11.

The examiner takes official notice that it is well known for satellite receivers and TV receivers to received MPEG encoded data {such as from a broadcast or other sources}, the devices either comprise or are associated with an MPEG decoder, which it is inherently required to decode the incoming digital broadcast or stream encoded in accord to MPEG, therefore, require decoding on the receiving side, therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the decoder as taught by Kim, into a satellite receiver or even providing the decoder to a TV receiver, to decode digital MPEG encoded streams presented to the recited receiving side devices, as is obvious to those skilled in the art.

Regarding claim 5, with respect to Kim and MPEG, the offset or STOC, is dependent on the duration of decoding of the image, in view being a time or clock, associated with decoding,

but, Kim fails to suggest the duration of decoding of the image rounded to a higher number of frame periods.

The examiner takes official notice that it is known that in systems when calculations or values are either tight or ideal, such as on paper, in the real world {at the time of implementation}, these values are subject to evaluation, when determining an amount required, which is ideal, that amount required or more is normally accomplished to provide a level of variation to the ideal to allow a system at the time of implemented to operate properly, when calculating a required amount, that is a minimum, therefore obviously the minimum, or more, would have been an obvious design choice, to make sure enough time or amount is provided, therefore, it would have been an obvious design choice to determine the minimum and provide some buffering room, such as recite,

a duration amount required and to round to a higher number of periods to accomplish the task at hand, which is an obvious design choice consideration factor, as would be have been obvious to those skilled in the art, in the process of the actual real life implementation of systems and devices.

Allowable Subject Matter

2.   Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 7, the prior art fails to teach, disclose or fairly suggest the claimed subject matter as claimed in claim 7 in combination with claims 1 and 2,

comprising:

wherein the offset STOC is equal to:

$$STOC = PTS - TVBV - Tvsync - (TimeRef \times 40 \text{ ms}) - Tdec - LSTCpic$$

wherein;

- TVSYNC corresponds to a frame period,

- TDEC corresponds to the duration of decoding of the image rounded to a higher number of frame periods,

- TimeRef represents the temporal reference of the image for the re-ordering,

- LSTCpic relates to the instant of detection of the first image.

Contact Fax Information

Any response to this action should be mailed to:
    Commissioner of Patents and Trademarks
    Washington, D.C. 20231

or   faxed to:

    (703) 872-9314, (for formal communication intended for entry)
or:

(703) 308-5359, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Contact Information

1. Any inquiry concerning this communication or earlier communications should be directed to the examiner of record, Monday-Thursday, 8:00 AM to 5:00 PM Vincent F. Boccio (703) 306-3022.

If any attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Andy Christensen (703) 308-9644.

Any inquiry of a general nature or relating to the status of this application should be directed to Customer Service (703) 306-0377.

Primary Examiner, Boccio, Vincent
6/28/04

VINCENT BOCCIO
PRIMARY EXAMINER